Silicon NPN Power Transistors KSD2058

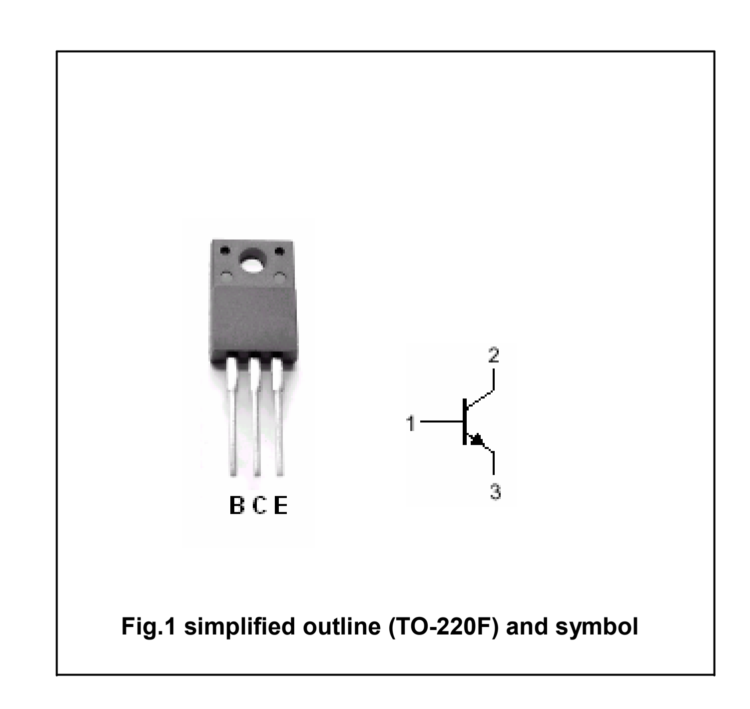


Fig.1 simplified outline (TO-220F) and symbol

DESCRIPTION

·With TO-220F package
·Complement to type KSB1366

APPLICATIONS

·With general purpose applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{CBO}	Collector-base voltage	Open emitter	60	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		3	A
I_B	Base current		0.5	A
P_C	Collector dissipation	T_a=25□	1.5	W
		T_C=25□	25	
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=50mA ;I_B=0	60			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=2A ;I_B=0.2A			1.5	V
V_{BE}	Base-emitter on voltage	I_C=0.5A;V_{CE}=5V		3.0		V
I_{CBO}	Collector cut-off current	V_{CB}=60V; I_E=0			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			1	mA
h_{FE}	DC current gain	I_C=0.5A ; V_{CE}=5V	60		300	
f_T	Transition frequency	I_C=0.5A ; V_{CE}=5V		3.0		MHz
C_{OB}	Collector output capacitance	f=1MHz;V_{CB}=10V		35		pF

Switching times

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
t_{on}	Turn-on time			0.65		μs
t_s	Storage time	I_C=2.0A I_{B1}=-I_{B2}=0.2A V_{CC}=30V ,R_L=15Ω		1.3		μs
t_f	Fall time			0.65		μs

◆ **h_{FE} Classifications**

O	Y	G
60-120	100-200	150-300

PACKAGE OUTLINE

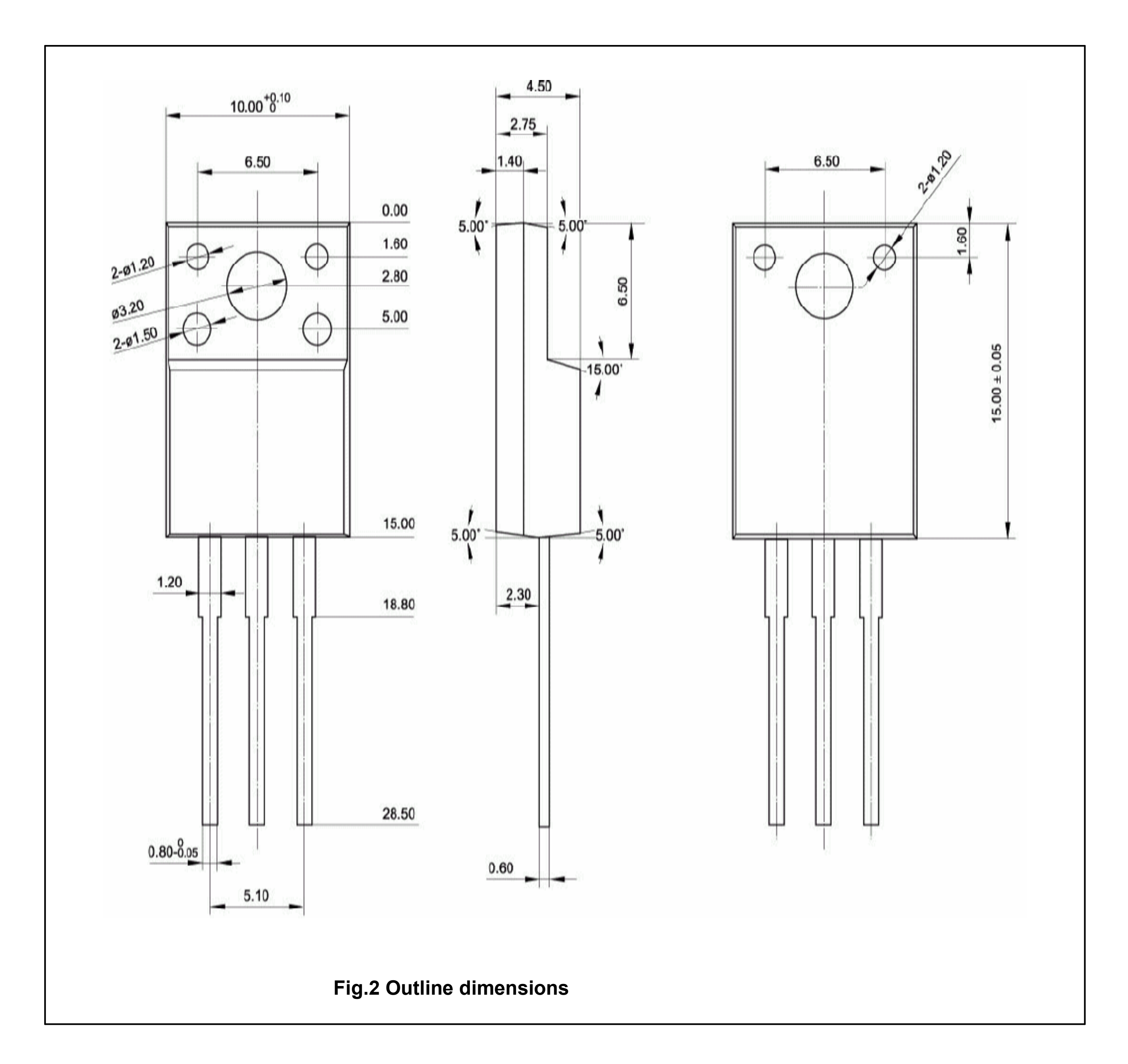


Fig.2 Outline dimensions